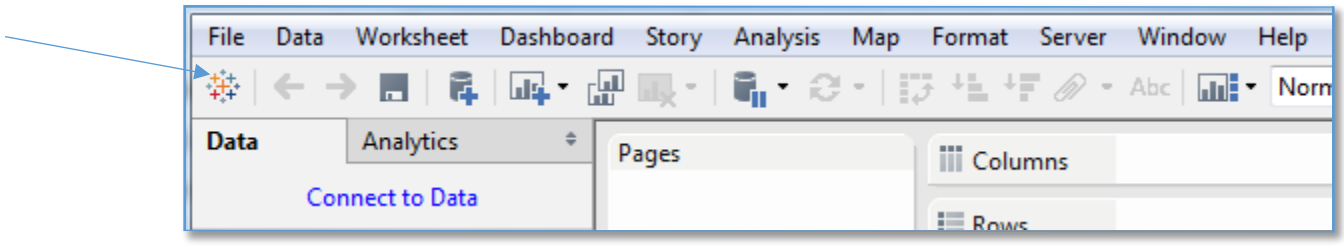
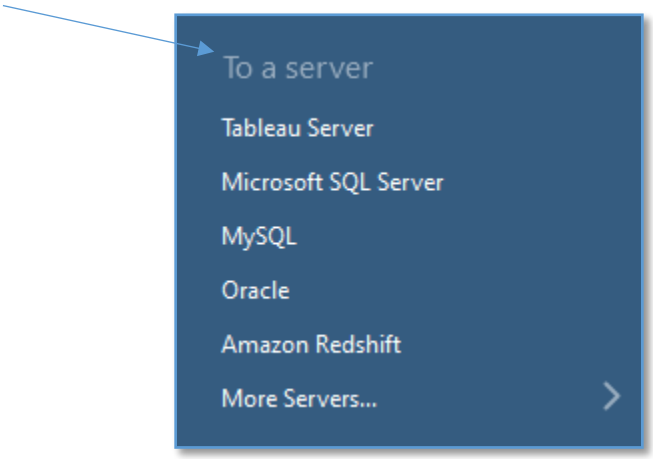
Connecting to a Server Data Source

For our next example, we'd like for you to get some practice using a data source published to the server.

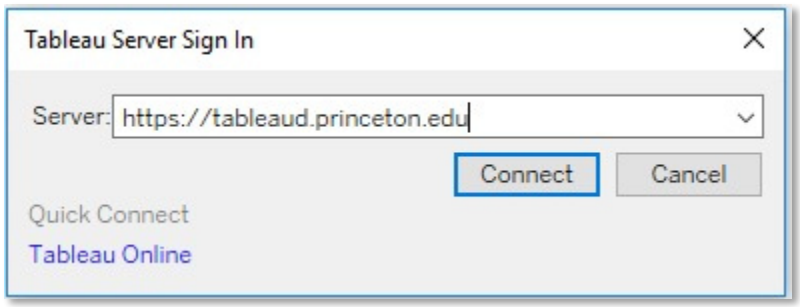
1. In Tableau, on the **File** menu click **New** to open a new session. Click the **Go to Start Page** icon.



2. Now select your data source. Under the **To a Server** section, select **Tableau Server**.

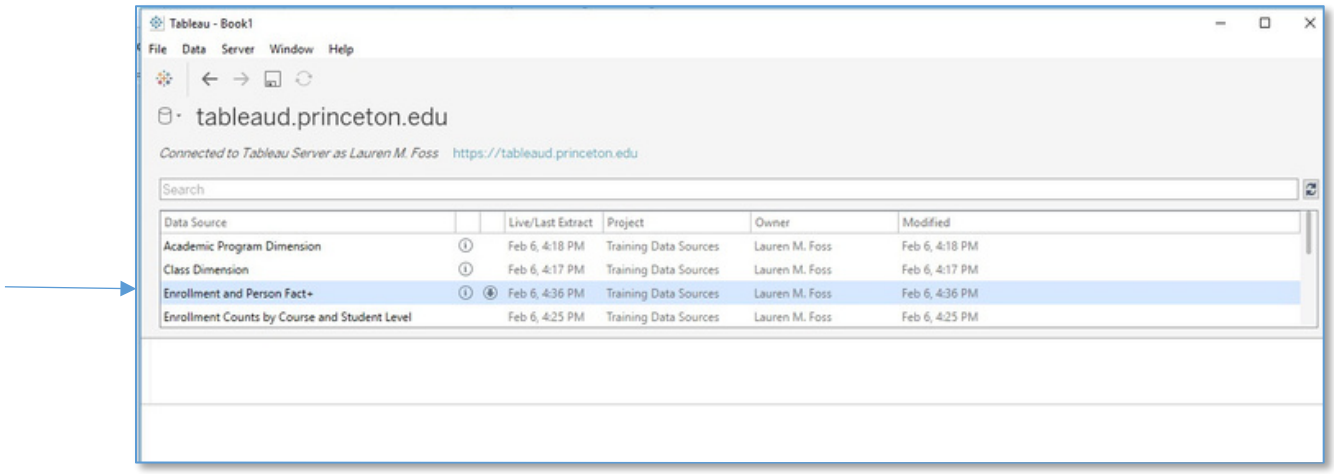


3. As this is a new session, you will need to log into the server.

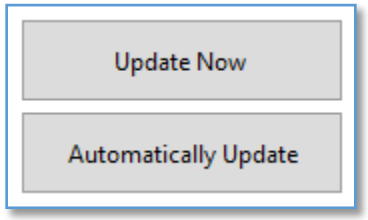


Enter your username (netid) and password. If you are authorized to use multiple sites, you'll need to select the site next. We will be using **Tableau Training** for this course.

4. Once logged into the site, you will see a list of available data sources. Choose the source you would like to use. We'll be using **Enrollment and Person Fact +** for this exercise.



5. Once your data source has been selected, the default connection type is Live or Extract. We will leave this setting as Live to allow the worksheet data update as the source on the server is updated. You will have the option of setting the refresh timing – **Now** or **Automatically Update**.



Choose **Automatically Update** to allow the worksheet update as the data on the server is updated.

6. When you are ready to start work, click the sheet under **Go to Worksheet**.

Editing and Saving a Data Source

One of the benefits of defining a data source in Tableau is that you can customize the data attributes, or metadata, for the source. For example, you might change a field's name or default properties. You might move a field from Dimensions to Measures or vice versa. You can add parameters, calculated fields, groups, hierarchies, bin, or sets. These customizations are retained while the source data table is left unchanged.

In order to review full functionality, connect to **Training Data Personal** in the **Introduction to Tableau** folder on your desktop. Once connected, click on **Go to Worksheet** at the bottom of the page. The following actions take place in the **Data Pane** on the left side of the **Worksheet**.

Modifying Data Attributes

There are many options for modifying your data attributes. In addition to changing the name or alias, you might want to change groupings or default options.

Organize Your Data

One thing you might choose to do is organize your Dimensions and Measures with Folders.

1. In the **Data** window, right-click the white space below the fields. Ensure the **Group by Folder** option is selected. The default is to **Group by Data Source Table** so you may need to change the selection.
2. In the Data window, right-click in the white space below the fields and choose **Create Folder**.
3. Add a name to the **Create Folder** dialog box, and click **OK**. For example, you could create an address folder to hold the various address fields.
4. Drag and drop the desired fields into the new folder. You can select multiple fields at a time using either shift + click or control + click.

Change Measure and Dimension Classification

Another thing you might change is the classification of a field from Dimension to Measure or vice versa. For example, when importing the data source into Tableau an ID field may have been interpreted as a Measure even though it is really a Dimension due to the numeric content. If this is the case, simply click the field and drag it from Measure to Dimension.

Set Default Properties for a Measure

You can customize the default properties for a measure to be different from the Tableau defaults.

1. Hover your mouse over the Measure you want to modify, click the down arrow displayed at the right of the field name. Then choose **Default Properties**.
2. You can choose from **Comment**, **Color**, **Number Format**, **Aggregation**, and **Total Using**. Note that your options will vary depending upon the field type.
3. Change the properties as desired according to the available options.

Set Default Properties for a Dimension

1. Hover your mouse over the Dimension you want to modify, click the down arrow displayed at the right of the field name. Then choose **Default Properties**.

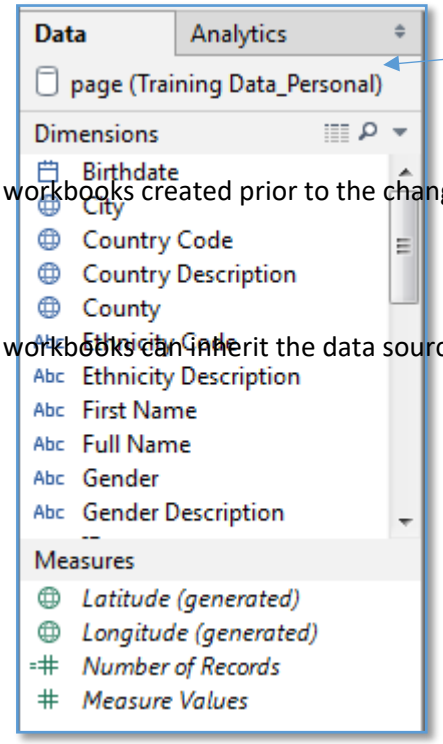
2. You can choose from **Comment**, **Color**, **Shape**, and **Sort**. Note that your options will vary depending upon the field type – date fields will also include **Date Format** and **Fiscal Year Start**.

3. Change the properties as desired according to the available options.

Saving Your Data Source

If you plan to use the data source again, you can save the data source in order to leverage these changes. They will be retained even when the underlying database or spreadsheet is update.

Your data source will be saved as a .tds file. This file does not contain any data, but rather includes the modifications and connection information you have added. A data source can be saved for either personal use or for group sharing.



1. In order to save the file for personal use, on the **Data** pane right-click the connection you want to create as a data source and choose **Add to Saved Data Sources**. Changes in the data source are not inherited by workbooks created prior to the changes being made.

2. For group sharing, you will publish the data source to the Tableau server. On the **Data** window, right-click the connection you want to share. Choose **Publish to Server**. When published to the server, subsequent workbooks can inherit the data source changes.

Exercise: Connecting to Data and Saving a Data Source

From the Introduction to Tableau folder on your desktop, open **Applicant Reporting** and create a saved data source with the following modifications:

Adjust data types as required to reflect the correct settings. Ensure that the Geographic role has been identified for all address fields (e.g. country, state, zip/post code). Adjust any data types have been interpreted incorrectly (e.g. class size and percentile should be numeric).

Detail Directions

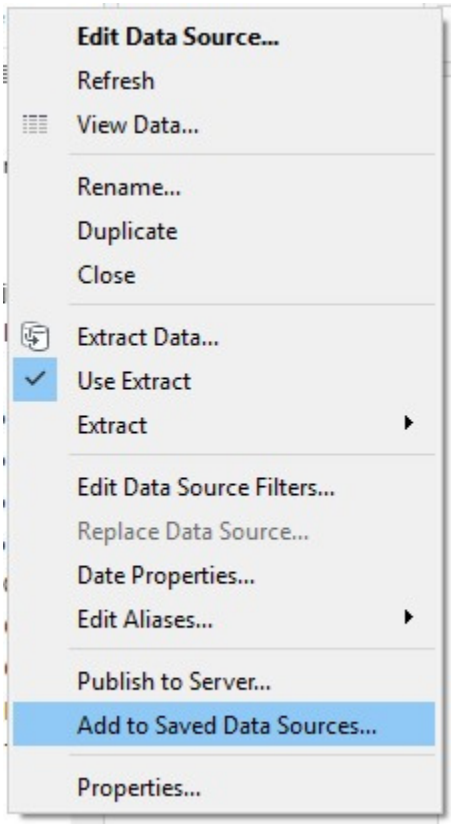
1. Open the Excel file **Applicant Reporting** from the **Introduction to Tableau** folder on your desktop.

2. Within the Metadata Grid on the Data Source, set **Home Postal** and **School Postal** to the correct **Geographic** role.

3. Convert **Student Term** to a **Dimension**.

4. Set Aliases for **Career Code**.

5. Save the Data Source as **Applicant Reporting**. (Hint: right click on your data source and select **Add to Saved Data Sources…**)



Understanding Changes to Data

When the underlying data in your visualization changes, your visualizations may be affected in different ways depending on how you connect to the data in Tableau and on the changes taking place in the underlying data.

Connection Type
If you are using a live data connection, changes to the underlying data will be reflected when you open the visualization or refresh the data connection in a visualization that is already open. If, however, you are using an extract changes made to the data will not be reflected in the visualization until you refresh the extract.

If you are using an extract and want to refresh the data, right-click the data source connection in the **Data** pane and choose **Refresh**.